

# VITAMIN E QUICKFACTS



Many foods have vitamin E including vegetable oils (such as wheat germ, sunflower, and safflower oils), nuts (such as almonds), seeds (such as sunflower seeds), and green vegetables (such as spinach and broccoli).

Vitamin E is a nutrient in food that people need to stay healthy. The body uses vitamin E, for example, to protect itself from infections and to keep blood flowing through the blood vessels.

## How much vitamin E do I need?

It depends on your age. Here are the amounts people should get on average each day, in milligrams (mg) and International Units (IU):

|                               |       |           |
|-------------------------------|-------|-----------|
| Birth to 6 months             | 4 mg  | (6 IU)    |
| Infants 7–12 months           | 5 mg  | (7.5 IU)  |
| Children 1–3 years            | 6 mg  | (9 IU)    |
| Children 4–8 years            | 7 mg  | (10.4 IU) |
| Children 9–13 years           | 11 mg | (16.4 IU) |
| Teens 14–18 years             | 15 mg | (22.4 IU) |
| Adults                        | 15 mg | (22.4 IU) |
| Pregnant teens and women      | 15 mg | (22.4 IU) |
| Breastfeeding teens and women | 19 mg | (28.4 IU) |

## What foods provide vitamin E?

You can get enough vitamin E by eating a variety of foods that includes vegetable oils (such as wheat germ, sunflower, and safflower oils), nuts (such as almonds), seeds (such as sunflower seeds), and green vegetables (such as spinach and broccoli).

Vitamin E is added to some breakfast cereals, fruit juices, margarines and spreads, and other foods (check the product labels).

## What kinds of vitamin E dietary supplements are available?

Most multivitamin-mineral supplements have vitamin E. It is also available alone as a dietary supplement or combined with other nutrients. The doses of vitamin E in these products are often much higher than the recommended amounts.

A chemical name for vitamin E is alpha-tocopherol. Vitamin E from natural (food) sources is listed on food and supplement labels as “d-alpha-tocopherol.” Synthetic (laboratory-made) vitamin E is listed on labels as “dl-alpha-tocopherol.” The natural form is stronger. For example, 100 IU of natural vitamin E is equal to about 150 IU of the synthetic form.

Other kinds of vitamin E supplements are named “gamma-tocopherol,” “tocotrienols,” and “mixed tocopherols.” These supplements are often more expensive than alpha-tocopherol. For most people, alpha-tocopherol (natural or synthetic) is fine.

## Am I getting enough vitamin E?

Many people do not get recommended amounts of vitamin E from food. But only people with certain diseases become deficient. These include people who have trouble

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digesting or absorbing fat, such as those with Crohn's disease, cystic fibrosis, and certain rare inherited conditions.

### What happens if I don't get enough vitamin E?

Usually, nothing obvious happens in the short run if you don't get enough vitamin E. But over time, not getting enough vitamin E can cause nerve and muscle damage and make your body less able to fight off infections.

### What are some effects of vitamin E on health?

Scientists are studying vitamin E to see how it affects health. Here are a few examples of what this research has shown.

#### Heart disease

Vitamin E does not seem to help prevent heart disease in middle-aged or older people or affect the risk of death from this disease. We do not know whether high intakes of vitamin E protect heart health in young, healthy people.

#### Cancer

It's not clear whether vitamin E prevents cancer. Vitamin E supplements might interact with chemotherapy and radiation therapy. If you are undergoing cancer treatment, talk with your health care provider before taking vitamin E or other dietary supplements, especially in high doses.

#### Eye disorders

Age-related macular degeneration (AMD, the loss of straight-ahead vision) and cataracts (clouding of the surface of the eye) cause vision loss in older people. It is not clear whether taking extra vitamin E might help prevent these conditions. In people who have early-stage AMD, a supplement containing vitamin E and other ingredients might help slow vision loss.

#### Mental function

Vitamin E supplements probably do not help healthy older people stay mentally active and alert. Vitamin E supplements cannot prevent or slow the decline in mental function, or prevent or treat Alzheimer's disease.

### Can vitamin E be harmful?

In healthy adults, up to 1,500 IU/day of natural vitamin E supplements or up to 1,100 IU/day of the synthetic form is safe. Higher doses can increase the time it takes blood to clot from a cut or injury. Very high doses can increase the risk of serious bleeding in the brain (stroke).

### Are there any interactions with vitamin E that I should know about?

Vitamin E can increase the risk of bleeding in people taking anti-clotting drugs, such as warfarin (Coumadin®). It might also interact with chemotherapy or radiation therapy. Also, vitamin E might lessen the effectiveness of medicines to lower cholesterol.

Bottom line: Tell your doctor, pharmacist, and other health care providers about any dietary supplements and medicines you take. They can tell you if those supplements might interact or interfere with your prescription or over-the-counter medicines or if the medicines might affect how your body uses vitamin E.

### Where can I find out more about vitamin E?

- Office of Dietary Supplements Health Professional Fact Sheet on Vitamin E
- Office of Dietary Supplements Consumer Fact Sheet on Vitamin E
- For advice on buying supplements, see the Office of Dietary Supplements Frequently Asked Questions
- For information on the U.S. federal government's food guidance system, see MyPyramid and Dietary Guidelines for Americans

#### Disclaimer

This fact sheet by the Office of Dietary Supplements gives information that should not take the place of medical advice. Talk to a doctor, registered dietitian, pharmacist, or other qualified health care provider before taking dietary supplements. They can tell you if dietary supplements are right for you and what effects they could have on your health.



For more information on this and other supplements, please visit our Web site at: <http://ods.od.nih.gov> or e-mail us at: [ods@nih.gov](mailto:ods@nih.gov)

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